

# Overview of ISU Activities Funded by Grow Iowa Values Fund (GIVF) 2005 – 2006

- ISU as a land-grant institution has a history of working with Iowa businesses and communities
- Infrastructure for Economic Development
  - Research Park, Business Incubators
  - Office of Intellectual Property and Technology Transfer
  - Instrumentation Facilities
  - Faculty
- Engagement with Communities
  - Agriculture Extension – Community-Based Economic Development (CBED)
  - Engineering – Center for Industrial Research & Service (CIRAS)
  - Business – Small Business Development Center (SBDC)
  - Design – Community & Economic Development (CED)
  - Faculty Research and Economic Development Activities
    - RFP sent to faculty
    - 47 proposals received
    - 9 projects have been recommended for funding

# IOWA STATE UNIVERSITY

## System For Innovation

VOLUME 1

LAST UPDATED: JANUARY 2006

## An Engine for Economic Development

### ISU Research Park and ISIS Incubator

#### Research Park Tenants:

47 tenants

Nearly 750 employees

Average wage exceeds \$40,000

3 Fortune 500 companies

Annually generates \$1.2 million in state income tax, \$1.1 million in state sales tax, and \$1.6 million in property tax



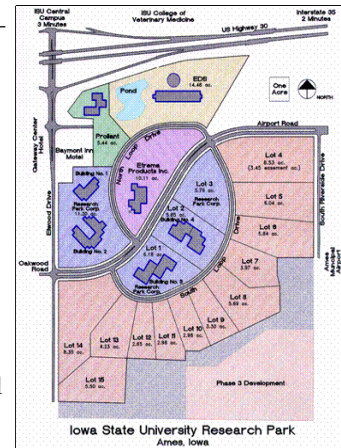
**Steve Carter,**  
Director, ISU  
Research Park

The ISU Research Park and incubator provides an environment where established technology-related organizations and science and technology entrepreneurial ventures can develop and prosper in Iowa. The Research Park was established in 1987. Historically, 148 companies or research centers have been affiliates of the park. Current tenants include 39

for-profit companies, four business support organizations, and four research centers. 330,000 square feet of building development has occurred, with 220,000 square feet owned and managed as multi-tenant buildings by the park. The Park sits on 120 acres with an option for an additional 100 acres for future growth. Fifty-seven percent of the organizations that are located at the Park began in the incubator and more than 70% of the organizations were established at the Park. The tenants of the Park employ nearly 750 people. Annually,

wages exceed \$33 million; \$1.2 million in state income tax, \$1.1 million in sales tax; \$1.6 million in property taxes are generated; and tenants annually purchase \$17.8 million in goods and services.

The ISIS incubator has graduated 47 companies — meaning that they moved out of the incubator space. Twenty-six of these companies are still located at the Research Park and employ 276 people. Eighteen companies relocated outside of the park, many still in Iowa.



**A schematic drawing showing the single tenant and multi-tenant buildings**

#### Pappajohn Center for Entrepreneurship:

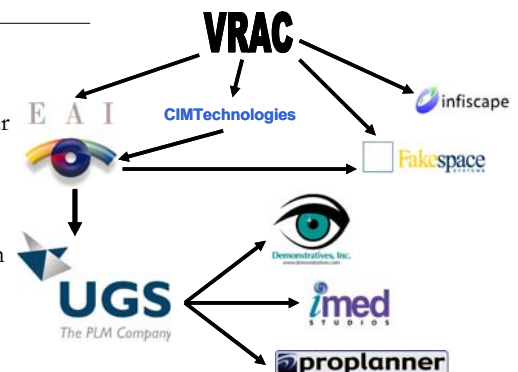
More than 600 students take entrepreneurship classes each year

Since 1997, 90 prospective technology start-up companies were assisted, leading to 49 companies employing 332 people

Formed a unique student residential learning community interested in entrepreneurship

### Success Story—Virtual Reality

When Jim Bernard came to Iowa State University he had a vision — virtually. The vision started to come to life in 1990 with the formation of a center that was renamed the Virtual Reality Applications Center (VRAC) in 2000. VRAC is focused on the interface between humans and computers and is complimented by an academic initiative in Human Computer Interaction. VRAC has been directly involved in the formation of four companies, one of which has lead to three additional companies.



**Companies formed as a result of VRAC.**

## ISU Research Foundation & Office of Intellectual Property and Technology Transfer



**Ken Kirkland,  
Director, ISURF  
& OIPTT**

The ISU Research Foundation (ISURF) was established in 1938 to own and manage intellectual property developed at Iowa State. The Office of Intellectual Property and Technology Transfer (OIPTT) was established in 1990 to market and license technologies. ISURF and OIPTT work together to transfer ISU innovations to society. ISURF is consistently ranked in the top tier of universities involved in technology transfer. During the past ten years, more than two thousand commercial licenses have been signed. More than 1/3 of the

active options and licenses are with Iowa-based companies. Over a ten year period, these companies have sold \$134 million of products based on ISU technologies, representing 23% of all sales of such products.

ISURF has licensed technology to 47 start-up companies since 1995; 35 were based in Iowa and more than half are still in operation. For start-ups, ISURF pays one year's rent in the business incubator and provides assistance to hire attorneys or other professionals to provide advice.

ISURF does not receive state support for its. To receive updates on ISU technologies, see [www.techtransfer.iastate.edu/en/for\\_industry/technology\\_search/subscribe.cfm](http://www.techtransfer.iastate.edu/en/for_industry/technology_search/subscribe.cfm).

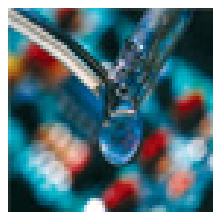
### The ISU Research Foundation:

*Ranked 1st among U.S. universities without medical schools in the number of options and licenses executed in FY04*  
*\$22 million in sales by Iowa companies based on ISU technologies (2004)*

*Signed nine technology and 93 germplasm licenses with Iowa companies in FY05*

*Nearly 16,000 bushels of specialty soybeans varieties developed at ISU were planted in Iowa during 2005*

*142 invention disclosures received in FY05*



**ISU has developed a solution to the problems caused by solder products containing lead by inventing a lead-free product.**

## Business Assistance

**IOWA STATE  
RANKS SECOND  
WITH 27  
TECHNOLOGIES  
THAT HAVE  
BEEN HONORED  
BY R&D 100  
MAGAZINE**

Iowa State provides a support network for entrepreneurial companies that locate their business on the ISU campus or at the ISU Research Park (tenant companies). Faculty start-ups can locate in the on-campus Roy J. Carver Co-lab or ISIS incubator at the Research Park, where they have access to common laboratory equipment at no cost. On campus fee-for-service facilities are accessible by tenant companies at the same rate an ISU faculty member receives — a significantly subsidized rate. Tenant Companies may also access resources such as the ISU library, Chemical Stores, and the communications infrastructure. For technology development, the ISU Research Foundation has a \$200,000 fund to develop ISU technologies that show commercial potential and IPRT Company Assistance has cost-sharing funds to assist industries in solving technical problems or improving products or processes. On the less technical side, the Pappajohn Center (PJC)/SBDC maintains a list of resources that can be accessed at no cost or reduced rates, for market research, business plan development, and other business resources. The PJC/SBDC also manage access to the Wellmark Community Ventures Fund that can provide up to \$150,000 in capital to early stage companies.

## Success Story—Metabolic Technologies, Inc.



starting a company and it involves a lot of muscle. Metabolic Technologies, Inc. (MTI) was started in 1990 based on HMB (beta-hydroxy-beta-methylbutyrate), a compound known to build muscle. The success at MTI is largely due to patience and a fundamental commitment to basic research. Initial

Steve Nissen, a professor in Animal Science, has a theory on

human applications were in sports while latter applications focus on muscle wasting diseases such as those found in AIDS, cancer and old age. Medical-related products developed by MTI are now nationally marketed in a variety of medical conditions. MTI continues to exploit new areas of nutrition and has several products underdevelopment which target prostate cancer prevention and treatment of osteoporosis.

# ISU Grow Iowa Values Fund Appropriations FY05 – FY06

Enhancement of Commercialization Infrastructure And Campus-wide Entrepreneurial Culture	600,000
<ul style="list-style-type: none"> <li>• The ISU Pappajohn Center for Entrepreneurship 200,000 <ul style="list-style-type: none"> <li>○ Private sector consultants</li> <li>○ Market research studies</li> <li>○ Staff to build IP, TT awareness</li> </ul> </li> <li>• The Institute for Physical Research &amp; Technology 100,000 <ul style="list-style-type: none"> <li>○ Staff to identify technologies in development with commercial potential</li> </ul> </li> <li>• Vice Provost for Research Office 100,000 <ul style="list-style-type: none"> <li>○ Staff to promote collaboration Activities between ISU &amp; Iowa business and industry</li> </ul> </li> <li>• The Research Park 100,000 <ul style="list-style-type: none"> <li>○ Provide startup companies a reduced cost environment</li> </ul> </li> </ul>	
Short-Term Projects	500,000
<ul style="list-style-type: none"> <li>• Six Companies identified</li> <li>• Example of a company:  <b>Metabolic Technologies</b> – A successful neutraceutical/pharmaceutical company founded by an ISU faculty member has discovered a low cost natural source of the most biologically active metabolite in Vitamin D. The company has identified uses in animal feed and human neutraceutical/pharmaceutical markets. The company will use \$150,000 to purchase equipment required to advance the development of purification processes.</li> </ul>	
Projects with High Potential for Commercialization	<u>825,000</u>
<ul style="list-style-type: none"> <li>• RFP sent to all faculty with 47 proposals submitted and review nearly completed. Nine proposals are recommended for funding</li> <li>• Review Process <ul style="list-style-type: none"> <li>○ College level scientific &amp; technical review</li> <li>○ University-wide commercialization review</li> <li>○ Final review – committee comprised of university faculty/staff and people from the private sector</li> </ul> </li> </ul>	

<b>Total</b>	<b>\$1,925,000</b>
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